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10/563,194	05/30/2006	Jens Stougaard Jensen	83196-375528	5997
25764 7590 10/08/2009 FAEGRE & BENSON LLP PATENT DOCKETING - INTELLECTUAL PROPERTY 2200 WELLS FARGO CENTER 90 SOUTH SEVENTH STREET MINNEAPOLIS, MN 55402-3901			EXAMINER: BUI, PHUONG T	
			ART UNIT 1638	PAPER NUMBER
			NOTIFICATION DATE 10/08/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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2200 WELLS FARGO CENTER  
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MINNEAPOLIS MN 55402-3901

In re Application of  
Jensen et al.  
Serial No.: 10/563,194  
Filed: 30 May 2006  
Attorney Docket No.: 83196-375528

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:Decision on Petition  
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This letter is in response to the petition filed under 37 C.F.R. § 1.144 filed on May 21, 2009, requesting reconsideration of the lack of unity requirement. The delay in acting upon this petition is regretted.

**BACKGROUND**

This application was filed as a national stage application under 35 USC 371 and as such, is eligible for unity of invention practice.

On 27 June 2008, the examiner divided claim 1-29 into 5 Groups as follows:

Group I, claim(s) 1-8, drawn to an NFR polypeptide.

Group II, claim(s) 9-15, drawn to a nucleic acid molecule.

Group III, claim(s) 16-24, drawn to a plant expressing a Nod-factor binding element.

Group IV, claim(s) 25, 26, 28 and 29, drawn to a method for marker assisted breeding.

Group V, claim(s) 27, drawn to a plant carrying a NFR allele.

The examiner then required an election of species amongst the different sequences. The examiner stated "Nod factors are known in the art, citing page 5 of the specification" however, no particular prior art was cited to establish that the same or corresponding technical features did not make a contribution over the prior art.

On 27 August 2008, applicants elected, with traverse, Group I and SEQ ID No 8 directed to NFR5, with traverse.

On 21 November 2008, in a non-final Office action the examiner incorrectly indicated that applicants elected Invention III. The examiner addressed the traversal and made the requirements final. Claims 2 and 6-29 were withdrawn as being directed to non-elected invention. Claims 1 and 3-5 were rejected under 35 USC 112, 2<sup>nd</sup>. Claims 1 and 4 were rejected under 35 USC 112, 1<sup>st</sup>, for scope of enablement and for lack of adequate written description. Claims 1 and 4 were rejected under 35 USC 102(b) and (e). Claims 3 and 5 were indicated as free of the prior art.

On 21 May 2009, applicant submitted a response to the Office action and the petition currently under review.

On 20 August 2009, the examiner mailed out a notice of non-responsive amendment concerning the lack of underlines in added material. On that same day, applicants filed a response with amended claims.

## **DISCUSSION**

The petition and file history have been carefully considered. Although unity of invention is general considered with regard to the claims as currently pending, in addition to addressing the merits of the petition, several inconsistencies in prosecution are noted and corrected.

First the original restriction requirement placed claims directed to nucleic acids in both Group I (claims 6-8) and in Group II (claims 9-15). This is incorrect. Because Claim 6 of Group I is directed to the same invention as Claim 9 of Group II, Groups I and II will be rejoined for examination.

Second, applicants elected Group I, however, in the first Office action on the merits, the examiner indicated that applicants elected Invention III. This is not correct. Applicants elected invention (Group I) is under examination.

Third, original claim 27 (now replaced with new claim 56, set forth below) was directed to a plant encoding a Nod-factor binding polypeptide. Page 14 of the specification makes links the technical features of the NFR polypeptide and the Nod factor binding element.

**NFR polypeptides:** are polypeptides that are required for Nod-factor binding and function as the Nod-factor binding element in nodulating plants. NFR

The specification discloses that the NFR polypeptide (see for example, new claim 49 of Group III) functions as Nod-factor binding element (see for example, the limitations used in new Claim 56 of Group V).

49. (Withdrawn, New) A transgenic plant expressing a heterologous Nod-factor binding element according to claim 30.

56. (Withdrawn, New) A plant selected according to the method of claim 54, carrying a Nod-factor binding protein allele encoding a variant Nod-factor binding polypeptide.

Because Group III and V require the same technical feature of a plant which contains a NFR polypeptide, that may function as a Nod-factor binding element, and because applicants are entitled to present multiple claims to describe their one invention in a variety of ways, using structural and functional limitations, the lack of unity between Group III and V is improper.

Fourth, it is noted that the product inventions are grouped in 4 different groups drawn to NFR protein (group I), DNA which encodes the NFR protein (Group II), plants which comprises the NFR protein encoded by the DNA (Group III) and a plant which carries an allele that encodes the NFR protein (Group V). Additionally, it is noted that nucleic acid of Claim 6 was grouped with the protein in Group I and not with the nucleic acid of Group II. This sort of grouping is inconsistent with the International Search and Preliminary Examination Guidelines provide Example 13 and Example 15 to address unity of invention when multiple products are claimed:

#### 10.33 Example 13

Claim 1: Filament A for a lamp.

Claim 2: Lamp B having filament A.

Claim 3: Searchlight provided with lamp B having filament A and a swivel arrangement C.

Unity exists between claims 1, 2, and 3. The special technical feature common to all the claims is the filament A.

#### 10.35 Example 15

Claim 1: Compound A.

Claim 2: An insecticide composition comprising compound A and a carrier.

Unity exists between claims 1 and 2. The special technical feature common to all the claims is compound A.

In this application, unity of invention exists because the plant of Groups III/V contains the DNA of Group II which in turn expresses the protein of Group I. This is consistent with the unity of invention holding between the composition of ISPE Guidelines Example 15 which contains the compound or the searchlight of ISPE Guidelines Example 13, which contains a lamp, which in turn contains a filament.

Fifth, because no particular prior art was cited in the unity of invention requirement to demonstrate that the product did not make a contribution over the prior art, applicants are entitled to examination of the product, (DNA of rejoined Groups I and II), along with the first method of using the first product (Group IV), which results in the plants (rejoined Groups III and V) which express the protein of Group I.

Sixth, with regard to the requirement to elect a single sequence, claims as currently pending are drafted such that the generic embodiment of "70% identity to SEQ ID No 8 encompass SEQ ID No 15, for example. For this reason, the sequences, *as claimed*, have unity of invention and no elect of species requirement is warranted.

Seventh, the examiner has indicated that Claims 3 and 5 are as free of the prior art in the first Office action on the merits. Claims 3 and 5, set forth below, recite all the particular sequences involved in the election of species requirement.

3. (Original) The Nod-factor binding element of claim 1, wherein the NFR polypeptide is NFR5 comprising an amino acid sequence selected from the group consisting of SEQ ID No: 8, 15, 32, 40, and 48.

5. (Original) The Nod-factor binding element of claim 1, comprising:
- a. the NFR polypeptide that is NFR1 or a functional fragment thereof, having the amino acid sequence selected from the group consisting of SEQ ID No: 24, 25, 52, and 54, and
  - b. the NFR polypeptide that is NFR5 or a functional fragment thereof, having an amino acid sequence selected from the group consisting of SEQ ID No: 8, 15, 32, 40, and 48.

Because the amended claims all require sequences (SEQ ID NOs 8, 15, 24, 25, 32, 40, 48, 52 and 54), which the examiner had indicated as allowable in the first Office action on the merits and because all the amended claims require a sequence which falls into the scope of the amended claims (at least 70% identical to the elected SEQ ID No 8) it would not be appropriate to continue to maintain the lack of unity requirement amongst these sequences.

## DECISION

The petition is **GRANTED** for the reasons set forth above.

The notice of non-responsive amendment has been vacated as incorrect. Applicants reply filed 21 May 2009 was bona fide response. The paper will be relabeled as a miscellaneous letter in PALM so that applicants will NOT receive negative Patent Term Adjustment for the response filed 21 May 2009.

The lack of unity determination and election of species requirements have been withdrawn. Groups I-V are rejoined for concurrent examination.

**The application will be forwarded to the examiner for preparation of an Office action consistent with this decision, in which the claims 30-58 will be examined together on the merits.**

Should there be any questions about this decision, please contact Quality Assurance Specialist Julie Burke, by letter addressed to Director, Technology Center 1600, at the address listed above, or by telephone at 571-272-0512 or by facsimile sent to the general Office facsimile number, 571-273-8300.



Remy Yucel  
Director, Technology Center 1600